CLAIMS

That which is claimed:

[1]   1.   A method of processing a multiprotocol label switching (MPLS) packet, comprising:

receiving an MPLS packet having first header information comprising at least a first MPLS label at a first MPLS network node;

operating a translation system to obtain second header information comprising at least a second MPLS label;

modifying the MPLS packet with the second header information; and

routing the MPLS packet to a second MPLS network node based on the second header information.

[2]   2.   The method of Claim 1, wherein the first and second MPLS network nodes are in the same MPLS network.

[3]   3.   The method of Claim 1, wherein the first and second MPLS network nodes are in different MPLS networks.

[4]   4.   The method of Claim 1, wherein the first MPLS network node is a destination for a plurality of MPLS labels.

[5]   5.   The method of Claim 1, wherein the translation system comprises a domain name system (DNS) and/or an address resolution protocol (ARP) database.

[6]   6.   The method of Claim 1, wherein the first MPLS network node is associated with a first inter-exchange carrier (IEC) network and the second MPLS network node is associated with a second inter-exchange carrier (IEC) network.

[7]   7.   The method of Claim 1, wherein the first header information comprises a plurality of MPLS labels.

[8]   8.   The method of Claim 1, wherein the first header information comprises a layer two and/or layer three header.

[9]	9.	The method of Claim 1, wherein the second header information comprises a plurality of MPLS labels.

[10]	10.	The method of Claim 1, wherein the second header information comprises a layer two and/or layer three header.

[11]	11.	The method of Claim 1, wherein the first header information comprises a layer two and/or a layer three header.

[12]	12.	The method of Claim 1, wherein the second header information comprises a layer two and/or a layer three header.

[13]	13.	The method of Claim 1, wherein modifying the MPLS packet with the second header information comprises replacing the first header information with the second header information.

[14]	14.	The method of Claim 1, wherein modifying the MPLS packet with the second header information comprises pushing the second header information on to the first header information.

[15]	15.	The method of Claim 1, wherein operating the translation system comprises:
	evaluating at least one routing criterion; and
	obtaining the second header information based on the evaluation of the at least one routing criterion.

[16]	16.	The method of Claim 1, wherein operating the translation system comprises operating the translation system to obtain second header information comprising at least the second MPLS label responsive to the first header information.

[17]	17.	The method of Claim 1, wherein operating the translation system comprises operating the translation system to obtain second header information

comprising at least the second MPLS label and operating instructions for the first MPLS node, the method further comprising:

operating the first MPLS node based on the operating instructions.

[18]   18.   The method of Claim 1, wherein the translation system is external to the first and second MPLS network nodes.

[19]   19.   The method of Claim 1, further comprising:

determining if a subsequent MPLS packet contains at least a portion of the first header information;

modifying the subsequent MPLS packet with the second header information; and

routing the subsequent MPLS packet to the second MPLS network node based on the second header information.

[20]   20.   A method of processing a multiprotocol label switching (MPLS) packet, comprising:

receiving an MPLS packet having first header information comprising at least a first MPLS label at a first MPLS network node;

obtaining operating instructions from an instruction system for the first MPLS network node responsive to the first header information; and

operating the first MPLS network node based on the operating instructions.

[21]   21.   The method of Claim 20, wherein the instruction system is external to the first MPLS network node.

[22]   22.   A system for processing a multiprotocol label switching (MPLS) packet, comprising:

means for receiving an MPLS packet having first header information comprising at least a first MPLS label at a first MPLS network node;

means for operating a translation system to obtain second header information comprising at least a second MPLS label;

means for modifying the MPLS packet with the second header information; and

means for routing the MPLS packet to a second MPLS network node based on the second header information.

[23]   23.   The system of Claim 22, wherein the first and second MPLS network nodes are in the same MPLS network.

[24]   24.   The system of Claim 22, wherein the first and second MPLS network nodes are in different MPLS networks.

[25]   25.   The system of Claim 22, wherein the first MPLS network node is a destination for a plurality of MPLS labels.

[26]   26.   The system of Claim 22, wherein the translation system comprises a domain name system (DNS) and/or an address resolution protocol (ARP) database.

[27]   27.   The system of Claim 22, wherein the first MPLS network node is associated with a first inter-exchange carrier (IEC) network and the second MPLS network node is associated with a second inter-exchange carrier (IEC) network.

[28]   28.   The system of Claim 22, wherein the first header information comprises a plurality of MPLS labels.

[29]   29.   The system of Claim 22, wherein the first header information comprises a layer two and/or layer three header.

[30]   30.   The system of Claim 22, wherein the second header information comprises a plurality of MPLS labels.

[31]   31.   The system of Claim 22, wherein the second header information comprises a layer two and/or layer three header.

[32]   32.   The system of Claim 22, wherein the first header information comprises a layer two and/or a layer three header.

[33]   33.   The system of Claim 22, wherein the second header information comprises a layer two and/or a layer three header.

[34]   34.   The system of Claim 22, wherein the means for modifying the MPLS packet with the second header information comprises means for replacing the first header information with the second header information.

[35]   35.   The system of Claim 22, wherein the means for modifying the MPLS packet with the second header information comprises means for pushing the second header information on to the first header information.

[36]   36.   . The system of Claim 22, wherein the means for operating the translation system comprises:

    means for evaluating at least one routing criterion; and

    means for obtaining the second header information based on the evaluation of the at least one routing criterion.

[37]   37.   The system of Claim 22, wherein the means for operating the translation system comprises means for operating the translation system to obtain second header information comprising at least the second MPLS label responsive to the first header information.

[38]   38.   The system of Claim 22, wherein the means for operating the translation system comprises means for operating the translation system to obtain second header information comprising at least the second MPLS label and operating instructions for the first MPLS node, the system further comprising:

    means for operating the first MPLS node based on the operating instructions.

[39]   39.   The system of Claim 22, wherein the translation system is external to the first and second MPLS network nodes.

[40]   40.   The system of Claim 22, further comprising:

    means for determining if a subsequent MPLS packet contains at least a portion of the first header information;

means for modifying the subsequent MPLS packet with the second header information; and

means for routing the subsequent MPLS packet to the second MPLS network node based on the second header information.

[41]   41.   A system for processing a multiprotocol label switching (MPLS) packet, comprising:

means for receiving an MPLS packet having first header information comprising at least a first MPLS label at a first MPLS network node;

means for obtaining operating instructions from an instruction system for the first MPLS network node responsive to the first header information; and

means for operating the first MPLS network node based on the operating instructions.

[42]   42.   The system of Claim 41, wherein the instruction system is external to the first MPLS network node.

[43]   43.   A computer program product for processing a multiprotocol label switching (MPLS) packet, comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to receive an MPLS packet having first header information comprising at least a first MPLS label at a first MPLS network node;

computer readable program code configured to operate a translation system to obtain second header information comprising at least a second MPLS label;

computer readable program code configured to modify the MPLS packet with the second header information; and

computer readable program code configured to route the MPLS packet to a second MPLS network node based on the second header information.

[44]   44.   The computer program product of Claim 43, wherein the first and second MPLS network nodes are in the same MPLS network.

[45]   45.   The computer program product of Claim 43, wherein the first and second MPLS network nodes are in different MPLS networks.

[46]   46.   The computer program product of Claim 43, wherein the first MPLS network node is a destination for a plurality of MPLS labels.

[47]   47.   The computer program product of Claim 43, wherein the translation system comprises a domain name system (DNS) and/or an address resolution protocol (ARP) database.

[48]   48.   The computer program product of Claim 43, wherein the first MPLS network node is associated with a first inter-exchange carrier (IEC) network and the second MPLS network node is associated with a second inter-exchange carrier (IEC) network.

[49]   49.   The computer program product of Claim 43, wherein the first header information comprises a plurality of MPLS labels.

[50]   50.   The computer program product of Claim 43, wherein the first header information comprises a layer two and/or layer three header.

[51]   51.   The computer program product of Claim 43, wherein the second header information comprises a plurality of MPLS labels.

[52]   52.   The computer program product of Claim 43, wherein the second header information comprises a layer two and/or layer three header.

[53]   53.   The computer program product of Claim 43, wherein the first header information comprises a layer two and/or a layer three header.

[54]   54.   The computer program product of Claim 43, wherein the second header information comprises a layer two and/or a layer three header.

[55] 55. The computer program product of Claim 43, wherein the computer readable program code configured to modify the MPLS packet with the second header information comprises computer readable program code configured to replace the first header information with the second header information.

[56] 56. The computer program product of Claim 43, wherein the computer readable program code configured to modify the MPLS packet with the second header information comprises computer readable program code configured to push the second header information on to the first header information.

[57] 57. The computer program product of Claim 43, wherein the computer readable program code configured to operate the translation system comprises:

computer readable program code configured to evaluate at least one routing criterion; and

computer readable program code configured to obtain the second header information based on the evaluation of the at least one routing criterion.

[58] 58. The computer program product of Claim 43, wherein the computer readable program code configured to operate the translation system comprises computer readable program code configured to operate the translation system to obtain second header information comprising at least the second MPLS label responsive to the first header information.

[59] 59. The computer program product of Claim 43, wherein the computer readable program code configured to operate the translation system comprises computer readable program code configured to operate the translation system to obtain second header information comprising at least the second MPLS label and operating instructions for the first MPLS node, the computer program product further comprising:

computer readable program code configured to operate the first MPLS node based on the operating instructions.

[60] 60. The computer program product of Claim 43, wherein the translation system is external to the first and second MPLS network nodes.

[61]   61.   The computer program product of Claim 43, further comprising:

computer readable program code configured to determine if a subsequent MPLS packet contains at least a portion of the first header information;

computer readable program code configured to modify the subsequent MPLS packet with the second header information; and

computer readable program code configured to route the subsequent MPLS packet to the second MPLS network node based on the second header information.

[62]   62.   A computer program product for processing a multiprotocol label switching (MPLS) packet, comprising:

a computer readable storage medium having computer readable program code embodied therein, the computer readable program code comprising:

computer readable program code configured to receive an MPLS packet having first header information comprising at least a first MPLS label at a first MPLS network node;

computer readable program code configured to obtain operating instructions from an instruction system for the first MPLS network node responsive to the first header information; and

computer readable program code configured to operate the first MPLS network node based on the operating instructions.

[63]   63.   The computer program product of Claim 62 wherein the instruction system is external to the first MPLS network node.